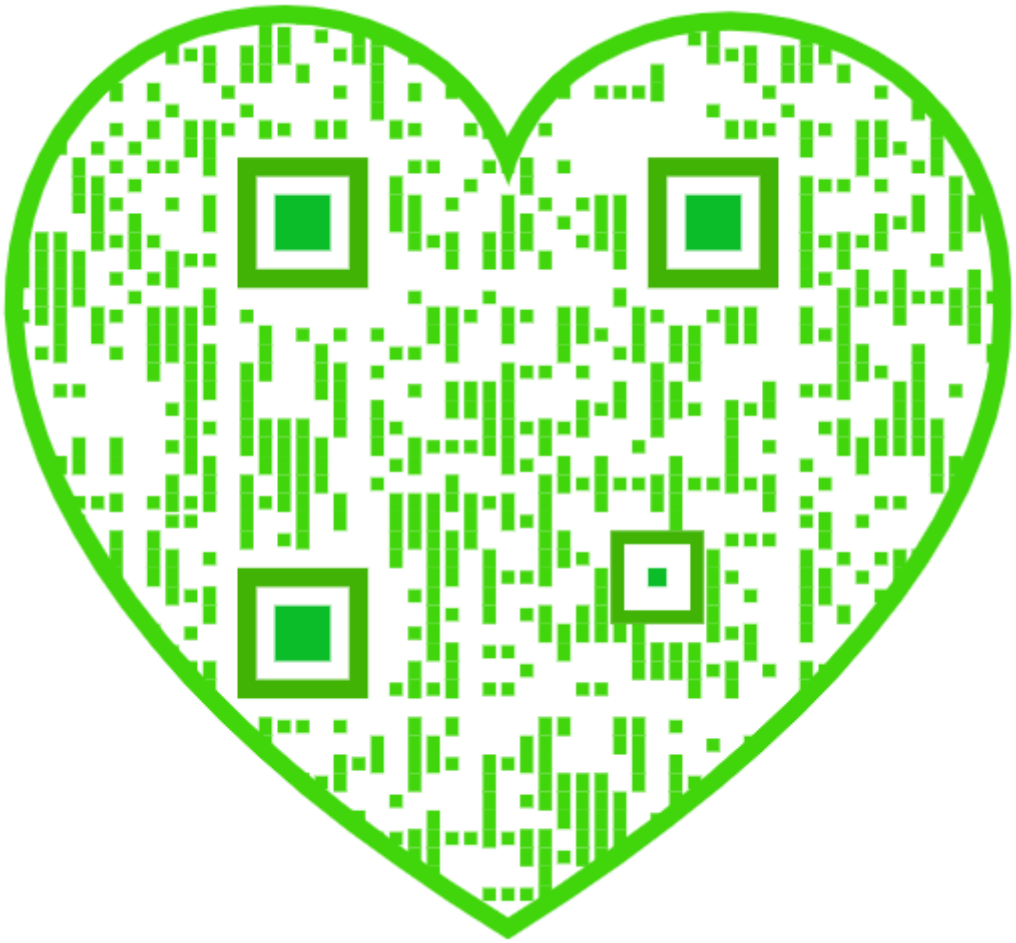

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A SUPPLEMENT TO

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BANKERS' MONEY

A SUPPLEMENT TO

A TREATISE ON MONEY

BY

J. SHIELD NICHOLSON, M.A., D.Sc.

PROFESSOR OF POLITICAL ECONOMY IN THE UNIVERSITY OF EDINBURGH
SOMETIME EXAMINER IN THE UNIVERSITIES OF CAMBRIDGE, LONDON, AND VICTORIA

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ADAM AND CHARLES BLACK
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PREFACE

THE following chapters are based on a series of Lectures delivered before the Society of Accountants in Edinburgh, the Institute of Accountants and Actuaries in Glasgow, and the Institute of Bankers in Scotland. Some corrections have been made, and the matter has been broken up and arranged in sections for the convenience of the reader, but no substantial changes have been introduced, and the work bears throughout the impress of its origin. The success of the book on *Money and Monetary Problems* (now in its 6th edition) has led the writer to hope that these additional chapters may also prove useful to the same class of readers. The treatment, as in the earlier work, is intended to be introductory and suggestive and such as may help to stimulate those engaged in practical business to a wider study of the principles and history of finance.

J. SHIELD NICHOLSON.

UNIVERSITY OF EDINBURGH,
August 1902.

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BANKERS' MONEY

A SUPPLEMENT TO A TREATISE ON MONEY

CHAPTER I

WHAT IS "MONEY"?

§ 1. *The money of the money market of the United Kingdom.*—In a very able address on the Constitution and Course of the Money Market, delivered in 1888 by Dr Charles Gairdner, late manager of the Union Bank of Scotland, the introductory sentences are as follows: "The money market of the United Kingdom is an institution of great importance and of some complexity. It has gradually grown to enormous proportions, and embraces a *fund* almost equal in amount to the sum of the National Debt. This fund is *held* by the banks, is practically *at call*, and is *repayable in gold*; and yet *ninety-five per cent.* of it is engaged in promoting the industries and material interests of the country and the world, while only five per cent. is actually held in coin." If you consider carefully the meaning of this statement,

it must strike you that, in spite of your familiarity with the state of things described, it is a very extraordinary statement. The *fund* of money of the money market is, on this calculation, over £600,000,000 in amount; 95 per cent. of it is apparently not in the market at all, that is to say, not in the banks by which it is said to be held; and only 5 per cent. is actually in coin. It may be added also that the total amount of coin in the United Kingdom is only about one-sixth of the total money of the money market as given by Dr Gairdner, and it is not in any sense under the control of the banks, but is being circulated from hand to hand.

§ 2. *Its practical importance.*—Since, then, the greater part of the "money" of the money market is not metallic money, the question is, "What is it?" It is no doubt something very real, for, as we all know, the abundance or scarcity of "money" affects the rates charged by banks for advances and discounts, and in that way affects the whole trade of the country. When the scarcity of money becomes extreme, we have indeed a commercial crisis, and for the time being all the trade of the country is thoroughly disorganised. And we know also by experience that at times of crisis the amount of *metallic* money or money material held by the banks is of the most vital importance. In the words of Walter Bagehot, the author of *Lombard Street*, and a banker and an economist of the first rank, "All our credit system depends on the Bank of England for its security. On the wisdom of the directors of that one joint-stock company it depends whether England shall be solvent or insolvent." And if the precise

method of stating the truth seems rather overstrained, there is no question of the central fact. Once the real gold reserves available for banking purposes get below a certain level—which again is variable according to circumstances—the whole monetary system of the country becomes clogged, and for the time almost unworkable.

§ 3. *General scope of argument.*—The subject I propose to discuss in this and the following chapters is in reality "The Constitution and Functions of the Money Market." In the *first* chapter I shall examine the meaning and nature of the term "money"; in the *second* I shall examine under the title of the "Foreign Exchanges" the interaction of the "money" of different countries; in the *third* I shall treat of the rates charged for loans of "money" under the title of the "Rate of Interest"; and in the *fourth* I shall give some account of the disorganisation of the money market under the title of "Commercial Crises." On each of these topics it would be much more easy to write a treatise than a chapter, and in each of them also the familiarity of the terms employed conceals great difficulties. Accordingly, at the risk of appearing too simple, I shall give most attention to the fundamental principles; but at the same time, in order not to appear too theoretical, I shall endeavour to illustrate the principles by reference to concrete facts of striking importance in themselves.

§ 4. *Different kinds of material money.*—In dealing with the question What is "money"? we may begin by a rapid survey of the various "things" that have been in the past or are in the present actually called

"money." You will find in the book on *Money*, by the late Professor Jevons, an interesting account of a great variety of primitive kinds of money—*e.g.*, cattle, slaves, tobacco, dried fish, straw mats, skins, and many others. You will also find in the very remarkable and learned work of Professor Ridgeway on the *Origin of Currency and Weight Standards* excellent illustrations of the beginnings of the evolution of "money." In the course of progress the metals gradually displaced other substances; in the struggle for monetary existence amongst the metals, silver and gold were the survivors; next, in the duel between gold and silver, for centuries silver held the supremacy; and it is only in the last quarter of a century that gold has obtained the position of being practically the world standard for *material* money.

§ 5. *Representative money.*—Long, however, before the battle of the standards had become critical, some of the most important "money" functions had come to be performed by other "things," these other "things" being embraced by Jevons under the comprehensive term "representative" money. The substance of all these things, if it can be called substance, is in effect credit; and although for certain purposes bank notes seem to have more of the nature of metallic money than do bills of exchange or cheques, as a matter of fact, in the money economy of the present day, bills of exchange, and especially cheques, are of far greater importance than bank notes. You might without much inconvenience abolish bank notes and carry on all internal trade and all foreign trade by coin, cheques, and bills

of exchange, but without cheques and bills or something of the same kind our present monetary system would be impossible. These various instruments—these credit documents—perform most important monetary functions; of this fact there can be no doubt. The latest return of the London Bankers' Clearing-House gives nearly 10,000 millions sterling as the amount of the cheques, bills, etc. for the year 1901.

I have said that bank notes are now of relatively small importance, but it was not always so. The history of Scottish banking in particular shows of what vital importance were the one-pound notes, and by no one has this importance been better brought out than by Sir Walter Scott in his famous letters on the Currency to the editor of the *Edinburgh Weekly Journal*, under the pseudonym of Malachi Malagrowther. The publication of these letters, it may be said, preserved for Scotland its one-pound note. The one-pound note,—this is the sum of Sir Walter's argument,—"converted Scotland from a poor, miserable, and barren country into one where, if nature has done less, art and industry have done more, than in any country in Europe, England herself not excepted."

§ 6. *On the use of economic methods.*—And here, if you will allow me, I will interject a general remark on the study of economics. It is necessary in the first place to get a real grip of economic methods, and especially of the method of abstract analysis. If you start at once with what you are pleased to call facts, you will make no progress whatever; you might

as well hope to understand botany by taking at random a barrow-full of weeds and making your own classifications and dissections without reference to the science of the subject. You must in economic science in general, and in monetary science in particular, get firm hold of leading principles, or, if you prefer, of guiding hypotheses; you must not be afraid of abstract reasoning. Thorold Rogers, who collected an invaluable mass of materials in his great work on the history of *Six Centuries of English Prices*, fell into the most serious errors in his commentaries and deductions, simply because he despised and failed to understand the abstract theory of money and prices.* The corresponding work for France, also for six centuries, by Vicomte d'Avenel, is in this respect far superior to that of Rogers, because the author has taken the trouble to make himself a master of theory. You must, then, begin with theory—abstract, hypothetical theory.

But it is equally important to observe that you must end with facts and with history; your theory is only preliminary. And in dealing with historical facts, you must not expect to find them all nicely cut and dried and ready to be ticketed with some particular form of some particular theory. Real facts are never isolated in this way; they are intermingled with all kinds of other facts, and that is why you require your analytic methods to make the separation. And, moreover, facts of one kind being so intertwined with facts of other kinds, you must be prepared to

* There is similar weakness in his most interesting work on the *First Nine Years of the Bank of England.*

search in very unlikely places. Most of you will not look naturally to Sir Walter Scott for the history of Scottish banking, but on the important phase to which I referred he may rank as an authority; and I may say incidentally that there is more economic history, that is to say history dealing with the real life of the people, in the novels of Sir Walter Scott than in any general history with which I am acquainted. I apologise for the length of this digression, and turn again to my abstract theories.

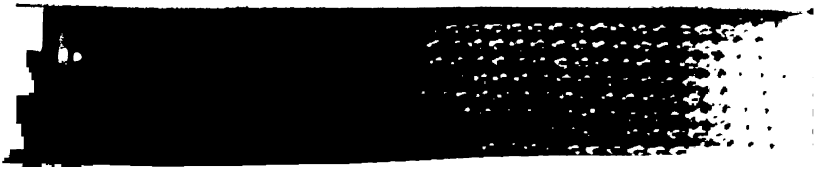
§ 7. *Necessary to separate the functions of money.*—Seeing, then, that in actual usage the term money is so variable, it is hopeless to begin with the so-called facts; we must take our monetary system to pieces to discover the working; in other words, we must consider separately the various functions of money. We shall then find that the reason why it is so difficult, if not impossible, to frame a definition of "money" which shall include all the "things" actually called "money," —the reason is that some of the functions of money are best performed by some things and others by other things. This is true even of the so-called primary functions, and only when we have examined these primary functions shall we be able to determine if a simple definition of money is possible.

§ 8. *Money as a general medium of exchange.*—The *first* great function of money is to provide a *general medium of exchange.* It is usual to begin an account of this function by reference to the inconveniences of barter, as in the example of the *prima donna* on a voyage round the world, who, in exchange for her songs in the Society Islands, was to get a third of the receipts.

When counted, her share consisted of three pigs, twenty-three turkeys, forty-four chickens, four thousand cocoanuts, and large quantities of bananas, lemons, and oranges. The only method of saving this wealth was to set the live stock to devour the fruit, and although this may be called a primitive form of banking, it is highly inconvenient.

After some such preliminary statement of the inconveniences of barter, and the insinuation that barter is only proper for savages, it is usual again to drag up barter from these lowest deeps and to set it on the highest pinnacle of civilisation. We are told that all exchange is in reality barter, that commodities pay for commodities, and that *money* is *only* an intermediary. That trade is incapable of development when confined to direct barter, and also that all trade is in the last resort barter, are both truths of the highest importance. And both propositions being true, the appearance of contradiction must be an appearance only. All the difficulty would be avoided if it were stated that all exchange is ultimately barter, but that "money" is in general a *necessary* intermediary. To describe money as "*only*" an intermediary is to suggest, at anyrate, that it might be dispensed with. And if by "money" we mean exclusively metallic money, that is perfectly true; but if we mean that the monetary function, as performed by some representative of this metallic money, can be eliminated and dispensed with, that is perfectly false.

You can only realise the fundamental importance of this primary monetary function by tracing the stages of industrial progress. The gradual substitution of exchange by *money* for exchange by *barter* has been one of



the greatest agencies in civilisation. Without money in its simplest form, that is in the shape of cattle or skins or some material thing generally desired and acceptable, trade would have been strangled in its infancy. And without money in its most highly developed form, that is in the form which it assumes in banking, modern industry would be impossible. In any just analysis banks are as necessary to production as are ships, railways, or factories.

But before leaving this primary function of money, that is, as a medium of exchange, we may go one step further. It is not necessary in modern commerce that some credit document, such as would be taken by a banker, should directly represent so much coin at every transaction. Besides cheques and bills, there are book credits, and even book credits are not necessary. It is sufficient that the commodities to be exchanged shall be *expressed in terms of money*, and in this case a relatively small balance (if any) of money need be transferred. In the case of international trade, indeed, we often have cases in which commodities are directly exchanged for commodities without the intervention of any form of credit. In this and similar cases, however, the monetary function passes into that of *a measure of values*. Both sets of commodities are *measured* in terms of money, and this is very different from simple barter.

§ 9. *Money as a standard measure of values.*—It is time to observe then, *secondly*, that money is required not only to furnish a common medium of exchange, but to provide a *standard measure of values*, or common measure in which all values can be expressed.

The necessity for a common measure of values appears very early in history. Thus, in the early medieval period, when rents were actually paid in the shape of so much labour or so much produce, it became customary to measure the values in terms of money. And in our own times valuations are made for all kinds of purposes as well as for actual exchanges. Thus, historically and actually, we may separate the function of money as a measure of values from the function as a medium of exchange. But the two are so closely connected, that though there may be measurement without exchange, there cannot be exchange without measurement, that is, in the ordinary course of modern trade.

In spite of this close connection, however, it is important to observe that the actual medium may not itself be the standard measure; it is enough if it is related to the standard as multiples or sub-multiples, or in any exactly determinate way. At present, in the United Kingdom, the sovereign is the standard unit of value; all values are measured in numbers, or in parts of sovereigns or pounds sterling. But the actual payments may be made by bronze, silver, notes, cheques, or entries in books. And the unit of value which itself constitutes or determines the standard measure need not itself be a coin at all. Thus, in most European countries the standard unit of value was originally the pound of silver, but there was never a coin of that magnitude or ponderosity. In fact, for centuries in England, though the standard measure was the pound of sterling, the only coins of any importance were silver pennies—the table, twenty

pennyweights one ounce, and twelve ounces one pound, shows the original relation of the penny coin to the pound measure: the pennyweight was literally a penny weight.

If all transactions and exchanges were effected immediately, anything that is universally accepted would serve as a standard measure of values. Thus, for example, inconvertible bank notes, *at any particular moment*, will effect exchanges just as well as convertible notes or coins. If others accept the notes at the same valuation in any market, that is sufficient. But as soon as we consider the production of things, we pass from a moment of time to a more or less prolonged period of time.

§ 10. *Money as a standard for deferred payments.*— It is this element of time which gives rise to a *third* primary function of money, namely, to provide *a standard for deferred payments.* Both theoretically and practically this function of money presents the greatest difficulties. The real meaning of any monetary contract is liable to be disturbed by fluctuations in the value of the monetary standard. Here, again, the best and most easy example is inconvertible paper. Suppose the notes were constantly changing in value, and that in the course of a week or a year you had to pay for every new purchase twice as much in notes, whilst for your old contracts, including your income, you only receive the old amount of notes, obviously you would be deprived of half the purchasing power of your money. That is the essential evil of inconvertible paper; it fluctuates in value, and vitiates the real meaning of contracts. In

extreme cases it ceases to fulfil this function of money altogether, and monetary bargains are made on some other basis in spite of legal prohibitions and penalties.

Now what is true of inconvertible paper in a magnified form is true of every standard for deferred payments in a greater or lesser degree. You make a contract on a gold basis—you will no doubt receive so much gold, or what represents so much gold, when the contract matures; but what the *value* of that gold will be depends entirely on the course of prices in the meantime. And, as a rule, if you take any selection of representative commodities, there is some movement in prices; that is to say, so much gold purchases more or less of various things and services.

§ 11. *On the meaning of stability of value in the standard.*—So long as the conditions of production and of demand are liable to change, it is impossible to get *any* standard with *absolute* stability of value, and the utmost we can aim at is relative stability of value. To attain this end we may eliminate certain common causes of fluctuation. Thus, for example, as regards supply, it is quite clear that if you have a very large durable stock, the variation in the annual production will be of minor importance. The annual supply of gold, for example, is always small relatively in the total world's supply, unlike the annual supply of wheat. Thus, so far, gold is a better standard than wheat. Again, for some things there is a fluctuating demand, and for others relatively a steady demand; and here again gold has the advantage compared with other substances that at different times have been used as money.

At first sight it seems as if the want of stability of value in the standard itself is a very terrible thing; but in this world there is perhaps nothing practical which attains the perfection of theory, and fortunately within limits this want of perfection is under ordinary conditions of no practical importance. Your yard measure expands and contracts with every change in temperature, but for ordinary purposes this is of no importance. In the accurate measurement of time, however, such contraction and expansion must be allowed for, and you have great skill displayed in making compensations in chronometers; and similarly in certain astronomical observations and calculations an error in the instrument of the smallest degree may vitiate the result, and incidentally send a big ship to the bottom of ocean. Fortunately, as regards value, no such precise measurements are required for practical purposes—everything is, as a rule, done within reasonable margins. It is only occasionally, with very great change in the conditions of demand or supply, that serious changes occur in the value of the money material that constitutes the standard. On such occasions there may be a very real disturbance of the meaning of monetary contracts and a very real disturbance of the distribution of wealth. Even in this case, however, the evil ought not to be exaggerated. The loss of one is the gain of another in any monetary disturbance, and the evil only becomes serious where the uncertainty actually dominates the volume of trade and production.

§ 12. *Money as a store of values.*—To the *three* primary functions of money already considered we may

add a *derivative* function. Money may be used as a *store* of values. In its elementary form this function is extremely simple—it consists simply of hoarding so much actual metal. But in the course of development this function of money has also become much more difficult of comprehension. To pay money into a bank by means of a cheque is very different from putting—according to the French idiom—little *sous* into a big stocking. In the case of the cheque, the only material difference consists, as a rule, in the change of a few figures in the books of one or two banks. And yet we speak as if the money were "stored" in the bank.

§ 13. *Résumé of the argument.*—Thus, again, we are led back to the original question propounded as the problem of this lecture, namely, What is "money"? What is this "money" that I put in the bank when I pay in a cheque, and What does the bank do with the "money"? We may indeed ask not only What is the "money," but Where is the "money"?

The answer to the question "What is money?" which serves to cover most of the popular usages, is the answer given in the late Professor Walker's book on *Money*—"Money is that money does"—or, in other words, anything which performs the functions of money may be classed as money.

But then all the difficulties of the definition reappear when we ask the further question: In order that a thing may be classed as money, must it perform *all* the functions or only one or two of these functions? Take, for example, concrete cases: In this country, for practical purposes, the gold coinage *only* fulfils *all* the functions. Gold only is compulsory legal tender under

all conditions for the fulfilment of monetary contracts; Bank of England notes, for example, are not legal tender by the bank itself, and other bank notes are still more restricted as regards this function; even the other coins made of silver and bronze, though popularly classed as money, have only a limited acceptance—they are, indeed, "token" money, and legally on the same footing as bank notes except for small payments.

The sovereign, again, is, in this country, *the only standard measure of values;* it is so, however, simply because the law has so determined. When a country is obliged to resort to inconvertible paper, it very often prohibits the use of gold as a standard, and by penalties tries to make its notes the standard. If we refer back to history we find examples of what is called the *double* standard, or better the *alternative* standard of gold or silver—that is to say, at the option of the debtor a monetary contract might be met by so much gold *or* so much silver, the rate being in general determined by law. On various grounds economists have proposed other standards, as, for example, an amalgam of gold and silver, or notes representing so much gold *and* silver.

Again, in this country gold is the *standard for deferred payments.* Take the National Debt: it is repayable in gold, though it may not be repaid for centuries. Similarly as regards many perpetual debentures, the interest is payable in pounds sterling—that is to say, gold. But when we take very long periods, changes in the value of the standard may be of practical importance. In this case we have all

the difficulties connected with appreciation and depreciation, some of which will be considered in connection with the "Foreign Exchanges." To remedy these difficulties some economists have proposed a *tabular standard.* In effect, this is a composite standard composed of a number of representative commodities. It is assumed that the debtor will covenant to pay not so much gold, but so much purchasing power, and thus the amount of gold money to be paid would vary with the course of prices.

Finally, when we consider the function of money as a *store of value,* the most important store is, in this country, the reserve of gold in the Bank of England. Most of the rest of the money that is deposited or stored in our banks is only "representative" money; it is only supposed to be *repayable* in gold. As a matter of fact, if all the so-called money which is supposed to be repayable at call were demanded at the same time, only a very small percentage could be paid. But although all this "bank" money could not be changed into gold *at any particular time,* and although it only represents gold in the highly conventional sense that it is repayable in gold, if demanded, it is not to be considered as in any sense unreal or intangible. The funds of the banks which are not represented by gold are represented by other forms of property, as, for example, by the produce and manufactures against which bills are drawn and are taken to the banks for discount, and also by the Government and other securities which are really mortgages over the property of the nation or of companies or of individuals.

It was said by Sir James Steuart, a great writer who preceded Adam Smith, that any form of property could be melted down into bank money. But the aggregate amount of this "bank" money must always depend partly on the amount of the real reserve available, and partly on the nature of the demands likely to be made on this reserve. The progress of banking in one important respect is shown by the diminution in the proportion of gold reserve to liabilities which it is necessary to keep, and this again depends partly on the demands for gold for circulating purposes—including transmission abroad—and partly on the credit of the banking system as a whole.

§ 14. *The definition and meaning of "money" must vary with its monetary function.*—It would obviously be absurd to say that only the gold of the money market is money, and still more absurd to go to the other extreme and say that the other forms of property pledged directly or indirectly to the banks are money. If, then, for the last time we put the question: What is "money"?—As the result of our inquiry into the monetary functions, the only satisfactory answer appears to be that we must recognise that there are various kinds of money, and that the definition must vary according to the monetary function that we are considering. In reality, instead of trying merely to frame a verbal definition, we ought always to make clear the different monetary functions. And a good practical rule is, as in other similar cases in economics, to use qualifying adjectives indicating the *kind* of money or the *kind* of monetary function to be considered.

§ 15. *The standard as determined by positive law.*—The *standard of value* in any country is exactly determined by the law of that country, and this definition governs the interpretation of all *monetary* contracts. How far the use of such a standard is compulsory is also a matter of law, and how far the law can be carried out depends partly on public opinion. As a matter of fact, at the present time most commercial contracts in this country are expressed in terms of "money," that is to say, in terms of the pound sterling; but if people so desire, there is nothing to prevent them making bargains to make payment according to a tabular standard or any other standard. But, as a matter of history, in the course of time the governments of all countries beyond a certain stage have adopted as their standard some definite amount of gold or silver (and in some cases an alternative at a certain rate). At the beginning of last century England formally adopted the gold standard, and in the last thirty years the gold standard has been adopted to such an extent that it may now claim to be the commercial standard of the world. The gold *moneys* of the different countries are in this way related according to the amount of fine gold they contain. In certain countries, however, silver is still the standard, and in others there are various legal standards which are only indirectly or partially on a gold basis, as, for example, the rupee in India. These other standards, however, for the purposes of international trade, may be reduced to terms of gold at any particular time.*

§ 16. *The medium of exchange line as determined*

* Compare the chapter on "The Foreign Exchanges."

by law.—The *medium of exchange* in any country which people *must* accept in satisfaction of a debt when offered by the debtor is also a matter of law, and how far its compulsion can be extended to future contracts is a matter of Government and public opinion. How far, as a matter of fact, people may and do accept other means of settlement in place of legal tenders is a matter of habit and convenience, and how far such acceptance is final or irrevocable is a matter of law. These various "things," which locally and temporarily so far fulfil the function of money as a medium of exchange, may be said to represent, or to be based upon, standard money—that is, in most countries, gold, directly or indirectly. Thus, gold in gold-standard countries may also be said to be the *fundamental medium of exchange*, though in some cases the foundation may be in bulk and value relatively small compared with the superstructure. The actual use of gold may be economised to a marvellous extent by the use of "representative" money; but it cannot be dispensed with altogether, any more than the foundation of a building.

§ 17. *Gold itself strictly not money but money material.*—Gold, then, under present conditions certainly fulfils all the monetary functions to a degree that is not true of anything else. But, to raise one last difficulty for purposes of illustration, *gold itself* is *not money* but only *money material*, and therefore so far only representative of "money." At the time of the great Australian gold discoveries in the early 'Fifties, gold in South Australia is said to have fallen to 45s. an ounce, and in Victoria to 60s., as compared

with the mint price of £3, 17s. 10½d. Of course with open mints and no charge for coinage such a difference could not arise, although even in London at the present time there are on occasions slight differences between the mint price and the market price of gold. But this last difficulty is not raised for purposes of explanation but of illustration. The point is, that for certain purposes the *money material* —even *gold itself*—must be distinguished from money.

In conclusion, then, we can only reaffirm the position already laid down: For various purposes the term "money" is used in various senses, which are best indicated by qualifying adjectives. Thus we may speak of *metallic* money, both "standard" and "token"; of *paper* money, including convertible and inconvertible bank notes; of "*representative*" money, including not only bank notes but various forms of bankers' credits; we may speak of "*national*" money and of "*international*" money; of money in *active* circulation, or of money in *passive* reserve; of money as *legal tender* and of money as the *currency* in practical use; we may speak of the *value of money*, meaning thereby the *rate of interest*, or of the value of money, meaning thereby its *exchange value*, as determined by the level of prices; and thus, finally, we are led to consider the *appreciation* and the *depreciation* of money, and the *relative values* of different forms of money and money materials.

§ 18. *In monetary problems necessary to state what meaning of money is intended.*—Accordingly, when we are dealing with monetary problems, it is generally necessary to lay down at the outset the meaning to be

attached to the term "money" in the course of the argument—a precaution of special importance in dealing with the "*quantity theory of money.*" Otherwise, if we do not take this precaution, it is hardly possible to escape confusion. And this habit of constantly looking into the meaning of money has its practical advantages. The whole business of banking consists in estimating the demand for money of different kinds for different purposes: in some cases a demand for money may mean no more than a change of figures in bankers' books; but in other cases it may mean that the Bank of England is obliged to borrow, as on certain historical occasions, actual gold from the Bank of France.

[*Note.*—For a full development and illustration of the argument, see the writer's *Principles of Political Economy*, vol. ii. chaps. xi.–xviii.]

CHAPTER II

THE FOREIGN EXCHANGES

§ 1. *Introductory.*—In attempting to give in a single chapter an account of the theory of the foreign exchanges, it is obvious that the attention must be mainly devoted to general principles. Those who require practical details may be referred to Tate's *Cambist*, or to the A B C of the Foreign Exchanges by Mr George Clare. That the general theory requires careful statement, and is not so obvious as is sometimes assumed, is evident from Viscount Goschen's standard work, which is still of the highest value on account of its principles, although most of the examples are altogether out of date.

I shall first of all explain the meaning of the terms and the extent and limits of the fluctuations, and then I shall notice, so far as space permits, some of the important indirect effects on banking and trade of certain kinds of fluctuations in the exchanges.

§ 2. *International debts—Exports and imports.*—The term foreign exchanges refers to the settlement of *international debts.* Accordingly, in the logical treat-

ment of the subject, we ought to begin with the analysis of international indebtedness. The first element to be considered is the amount of the exports and imports. It is a commonplace of economic theory that imports are paid for by exports. And if there were no other elements in international indebtedness, imports could be paid for in no other way. Either the value of the exports must equal that of the imports, or else the trade must cease. A country that does not itself produce gold could not go on paying for imports with money; it must replenish its money supplies, and it could only do so by selling exports abroad. Suppose that a country had an excess of imports which it could only pay for by sending money or money material. As the country was denuded of its money, prices would fall; it would become a good country to buy from and a bad country to sell to; and thus exports would be stimulated and imports would be checked until the adverse balance was reversed. In practice, in modern societies, long before the country was denuded of its money there would be, through the drain on the reserves of the banks, such a check to credit that prices must fall. But the principle is still the same: Provided exports and imports are the only elements in international indebtedness, prices must be so adjusted that exports and imports balance, or else the trade must diminish or cease.

§ 3. *Real par of exchange.*—The operation of this principle is hidden by various conflicting circumstances. As Adam Smith pointed out long ago, it is practically impossible at any time to say what is the balance of trade between any two countries. What is some-

times called the "*real*" par of exchange, in the sense of an equality of indebtedness, is much better called an "*ideal*" or *hypothetical* par—a useful *assumption* in certain kinds of reasoning. It is altogether different from the "*mint*" par, or "*nominal*" par, which expresses a definite concrete fact, as is explained later on.

§ 4. *Trade of countries and of individual traders.*—Again, for simplicity of reasoning, we say that one country—England—trades with another country—France, just as if the two countries were run by a gigantic trust on each side, and as if the state of account were reckoned up and published every day. Nothing, of course, could be further from the truth. It was well said by Ricardo, who spent most of his days in making money on the stock exchange and his nights in making fame in economic theory, that every transaction in commerce is an independent transaction. The trade between France and England is not run by two trusts, but by a multitude of independent merchants.

The reconciliation between the two positions is found in the course of prices. The merchants have to make their bargains in terms of prices, and prices are influenced not only by particular relative causes but by general causes. And amongst such general causes are the terms on which bills can be discounted or advances from banks obtained. And, as will be shown presently, the rate of discount depends, *inter alia*, on the course of the foreign exchanges, which again depends, *inter alia*, on the balance of exports and imports, or rather on the payments that have to be made on account of trade transactions.

§ 5. *Other elements in international indebtedness compared with exports and imports.*—There are, however, other elements in international indebtedness as well as exports and imports, on account of which payments have to be made. These elements I shall only enumerate, as I must in some way economise my limited time. You will find them very clearly stated in Lord Goschen's second chapter; and in the page that forms the frontispiece to Mr Clare's little book you will see a debtor and creditor statement for London of international transactions.

Besides exports and imports we have to take account of payments in connection with freights, the purchase or sale of stock-exchange securities, the advance of loans, the interest on loans, the expenses of governments abroad, the expenses of foreign residents, the obligations incurred by banks, the profits of commissions of various kinds, and other minor elements. You will find it useful, I think, to translate all these various elements into the language of exports and imports; that is to say, to consider what would be the effect on the state of indebtedness if these various obligations were equivalent to or expressed by a corresponding increase of exports or imports as the case might be. This, indeed, is not only a good practical rule, but is a necessary procedure when we seek to explain the course of international trade; why, for example, year after year, the imports into the United Kingdom exceed the exports by many millions. This undoubted fact does not show that the imports are not paid for by the exports, but only that some of the exports are not in the form of material commodities. Thus, for example, a

freight has been well called an "invisible" export; the advance of a loan—*i.e.*, the capital sum—is, so to speak, an *import* of securities from the foreigner, and we must pay for the securities by exporting more commodities; the *interest* on the loans, on the other hand, acts from this point of view like another invisible export—now we export, so to speak, the *coupons* and receive payment in the shape of so much additional imports; the expenses of government or of absentees abroad may be regarded as if we actually were obliged to pay for additional imports to that extent—the imports being consumed on the way; and finally, foreigners have to pay us, by sending us something of value—that is to say, really by adding to our imports—on account of our commissions in settling international transactions of various kinds.

§ 6. *Exports and imports typical of all international debts.*—It appears, then, that not only are exports and imports the principal elements to be considered in international indebtedness, but that other elements may also be likened to them and expressed in terms of exports and imports, and, indeed, they have a precisely similar effect on the balance of indebtedness.

We are justified, then, in dealing with international indebtedness, in taking exports and imports as typical or representative, and in that way simplifying the central problem.

§ 7. *Traders in each country receive payment in money of that country.*—If, however, it may be taken as axiomatic that the exports are paid for by imports, in the extended use of those terms, it is equally certain, as a matter of common observation, that the

producers of these exports are paid for them in the money of their own country, and the producers of the corresponding imports are also paid for them in the money of their country. It is all very well to say that the coal exported by England is paid for by the wine imported from France, but it is pretty certain that the English colliers do not drink the French wine, and the French wine-growers do not burn the English coal. The English colliers eventually receive English money, and the French wine-growers French money, for their respective productions. Accordingly, if we carry out the same reasoning as regards all the other exports and imports, we see that the settlement of this international indebtedness involves the *conversion* at some point or other of French money into English money, and conversely. The French consumers of English coal in some way or other have to pay for it in English money, and in some way or other to pay this money in England.

§ 8. *Meaning and object of foreign exchanges.*—The way in which this is done is explained by the theory of the foreign exchanges. "The foreign exchanges," to quote the old standard work,* "are transfers from the money of one country to that of another effected by the operation of Bills of Exchange."

It may, of course, happen that different "foreign" countries have identical currencies, but the terms of the definition do not exclude this case; the essence is the transfer of *money power* from one country to another. The French consumer, through suitable agents or intermediaries, is obliged, not only to change

* Tate's *Cambist.*

his francs into sovereigns, but the sovereigns must be paid in England. If, however, every independent transaction of commerce were settled independently, we should have a multitude of parcels of coin or bullion constantly flowing in about equal streams from and to every country. England would be receiving money for exports and sending away money for imports. But the resources of very early civilisations were equal to avoiding this source of waste, and the foreign bill of exchange may be traced back, at any rate, to the middle ages.

For simplicity, it is convenient to assume that in this method of the settlement of the indebtedness one country is altogether active and the other altogether passive—*i.e.*, that one always draws and the other accepts. Suppose, for example, that American merchants export corn, cotton, etc. to England, and draw for the value on the corresponding English importers or purchasers. The bills being drawn on London entitle the drawers to receive money there from the acceptors. But so far they would be no better off, for they would have to fetch the corresponding gold from London. But suppose, further, that other American merchants buy from London piece goods of the same value as this exported corn. They can, of course, settle their debts by sending gold, but they can settle them equally well by buying these bills from the exporters and sending them to London, where they will be paid by the acceptors. By the intervention of these bills the remittance, to and fro, of bullion is avoided, and the American exporters of produce receive American money, and

the English sellers of piece goods receive English money.

§ 9. *The mint par of exchange.*—It is clear, however, that the bills being payable in pounds sterling, and being sold for dollars, the first element in determining the price of the bill is the relative value of the pound sterling and the dollar. This again depends on the amount of fine gold each contains, and what is called the *mint par* of exchange tells us how much of the other country's currency contains, according to *its* law, the same amount of pure metal as is contained in *our* standard coin, according to our law. The mint par is deduced from the legal definitions of the respective standard coins. If we take the pound sterling as fixed, or as the basis, the mint par with U.S.A. is 4·866 dollars, with France 25·2215 francs, with Germany 20·43 marks.

If the foreign coins were being exchanged at the same spot in order to be melted down, this mint par would also give the actual rates of exchange. But the term foreign exchanges refers primarily to a transaction in which a bill (say) for pounds payable in London is sold for dollars received in America, and it is this difference of place which accounts for the fluctuations in the rates of exchanges, or, as it is called, the rise and fall in the exchanges.

I proceed, then, next to notice the principal causes of these fluctuations and the limits to their rise and fall. It is better now to pass from the simple case of one kind of export and one kind of import, and to include all the elements in international indebtedness, and, *inter alia*, the invisible exports,

and, if I may coin a similar phrase, the "intangible" obligations.

§ 10. *Limits of fluctuations—Gold points.*—Suppose, then, at any particular time a number of people in New York have to make remittances to London, and that a number of other people in New York are anxious to sell various credit documents, bills, drafts, etc., which entitle the holders to receive money in London. If the demand exceeds the supply, the price of these bills (or other documents) will rise. But the limit of the rise will be given by the point at which it will be just as cheap for the American debtor to send actual gold to London. This is the *out-going gold point* from New York, and it may be taken as £1 = $4·89½; conversely, if the supply of bills exceeds the demand the price falls, and it may fall to such a point that it would be just as profitable for the owner of the bill—the American creditor—to send for the gold. This is the *incoming* gold point to New York, and may be taken as £1 = $4·83½.

§ 11. *Résumé and illustrations.* — To resume: The *mint par* is just $4·866 = £1. If the rate rises to $4·89½, it generally pays to send us gold; if it falls to $4·83½, it generally pays to take gold from us.* These gold points, or specie points as they used to be called, for export and import cannot, of course, be fixed with absolute precision, as they depend on the cost of transmitting the gold, but the average or normal is

* If the dollar is taken as fixed and the pence given as variable, the mint par is $1 = 49 1/16 d., and the gold points are $1 = 49d. for us, and $1 = 49⅛d. against us. If the dollar in New York would only buy 49d. in London, it would pay to send gold; if it would buy 49⅛d., it would pay to fetch gold.

approximately certain, and it is only under exceptional conditions that these limits are exceeded.

If you refer to Mr Clare's book,* you will see a diagram showing the course of the exchange at New York per *cable transfer* on London for the year 1891. In January, to begin with, the rate is low—$4·85\frac{1}{2}$, and it rises to the maximum (the out-going gold point from New York) in March—viz., $4·89\frac{1}{2}$. It remains high till the end of June, when there is a fall to the minimum of $4·83\frac{1}{2}$—the incoming gold point for New York. The general course of the fluctuations in this case is determined mainly by trade influences. The States, as a rule, ship to us large quantities of corn, cotton, etc. in the autumn, and from August to December the exchanges are therefore generally favourable to the States and, conversely, unfavourable to us. During the rest of the year the balance is in our favour and against America. In this particular year, however, it also happened that London was selling in America large quantities of American securities in the spring, so that there was an extra demand for remittances from New York to London.

The difficulty of giving actual concrete cases for the purpose of illustrating the theory is that we cannot in this way take the theory in parts and in order of simplicity; the concrete cases generally require for their explanation the whole of the theory and some practical qualifications besides. And in this example, which I chose to illustrate the effect of exports and imports on the exchanges between New York and London, I have introduced two terms not yet explained

* Note, p. 137.

—namely, the term *favourable*, and the term *cable transfer*.

§ 12. *Favourable and unfavourable exchanges.*—What, then, is the meaning of the expression that the exchanges are favourable or unfavourable, or for or against a country? The use of the terms may be explained in two ways—one partly historical, and the other very real at the present time. If we take our former illustration and consider the case of the American importer, if the exchange is below par he is able to buy his remittance for so much less—he gives fewer dollars for a hundred pounds payable in London. Thus it looks as if American currency fetched more of English currency. In former times there was always much anxiety about the actual exchange of currencies, and this is one historical meaning of the term favourable—*i.e.*, to obtain more foreign currency than usual for the native money. There is, however, a deeper meaning—also historical. When the exchange is favourable to a country it shows, *so far*—that is, omitting other elements of indebtedness—that the exports have exceeded the imports. Under the old ideas of the mercantile system this was considered a favourable state of trade. "Sell much and buy little" was considered the chief rule of the national trade economy. It is not necessary, again, on the one side to expose the fallacy, or on the other to indicate the element of truth, contained in this maxim.

§ 13. *Historical and present importance of.*—It is plain that, so far as any advantage was obtained from the state of the exchanges by way of trade, if the exchange was favourable to the importer or the buyer

of the bill, it was so far unfavourable to the exporter or the drawer of the bill. Probably the idea was that the exporter would transfer any loss to his foreign debtor. This usage, however, of the terms "favourable" and "unfavourable"—namely, as supposed to indicate the balance of trade—is now, or at any rate ought to be, only of historical interest.

But, I hasten to say, there is a sense in which the terms, favourable and unfavourable exchanges, may still be used with a very real meaning. Gold is a commodity which, for many purposes, is very different from any other commodity. The gold held by the Bank of England is of far greater importance to the United Kingdom than is indicated by its monetary value. If, owing to any cause, we exported suddenly twenty or thirty millions more of commodities than was usual at that period of the year—if, for example, owing to the outbreak of war between China and Japan we exported a mass of materials suitable for the mutual destruction of these friendly states, there might be some political protests and some interesting lawsuits, but, on the whole, the trade of this country would be stimulated, and possibly leap and bound. But if, on the other hand, these wily orientals were able suddenly and unexpectedly to withdraw from the Bank of England twenty or thirty millions of gold, which also is very useful in time of war, our trade, instead of leaping and bounding, might very possibly suffer from the depressing influence of a commercial crisis.

It is the passage of gold from one country to another that gives the principal general interest to the foreign

exchanges. To the great mass of the people of this country who are engaged in business of various kinds, the course of the foreign exchanges is in general of no interest whatever, except in one particular—namely, if there is a rise or fall, in consequence, in the rate of discount. That they see and feel. For one business man who considers the course of the foreign exchanges, a thousand consider the movements of the bank rate. There are also, it is true, other *indirect* influences which occasionally have far-reaching consequences and call for careful examination. In general, however, especially in this country, the principal interest of the foreign exchanges is in connection with the rate of discount.

§ 14. *Short and long exchange.*—And this leads me to notice the other term which arose in my New York illustration—namely, cable transfer. In itself this term requires no explanation, but it leads up to a point of importance—namely, the difference between the short exchange or exchange at sight, and the long exchange or after so many days' notice. This distinction also, it will be found, is closely connected with the rate of discount.

The typical instrument for settling international indebtedness is, as already pointed out, the bill of exchange, which arises from an actual trade transaction. If, then, this bill of exchange is not payable at sight, but, say for simplicity, after three months, its present value is subject to three months' discount. Accordingly, if in New York a cable transfer on London could be bought, say at par—*i.e.*, if for one pound payable at once in London 4·866 dollars would be

given, then for a pound payable after sixty days the discount must be subtracted. Thus, referring to the foreign rates of exchange in London quoted in the *Economist* at the date of writing, the New York cable transfer on London is £1 = \$4·87½, while the long exchange at sixty days is \$4·84⅜.

§ 15. *Influence of rate of interest.*—It may be worth while to consider this case with an example in which a remittance is sent *from* London (say) to Paris. If the London debtor can purchase for a pound a cheque for so many francs payable on demand, he will require for his pound so many more francs in a bill which must be discounted, and how many more francs will depend on the rate of discount in Paris. Thus, in the same number of the *Economist*, I find in the London course of exchange Paris cheques are quoted at 25·12½, which happens to be very nearly the gold point against us, and bills at three months are quoted at 25·32½. The principal cause of the difference is the rate of discount in Paris.

In certain cases, moreover, the rate of interest, or rather the relative rate, in the country which *draws* the bills may be of importance in influencing the course of exchanges. Suppose, for example, that the rate of discount in Paris is much lower than in London, or suppose that the Bank of England raises its rate and that the conditions of the London money market are such that the market rate in London rises to the same extent, or it may be even more. What would be the effect on the exchange between Paris and London? One natural and obvious result would be that Paris bankers would wish to send money for investment in

London at the more profitable rate, and thus the exchange would turn—so far—in our favour. This natural and obvious effect would be intensified by a less obvious cause. Bills drawn on London by Paris having their present value calculated at the London rate, would be a good investment for Paris bankers. Thus they would compete for these bills—not for remittance but for investment. This extra demand, however, must so far turn the exchanges in our favour still more, or at least make the movement more speedy. It is, of course, the *difference* in the rates in the two places which must be considered in this connection.

As I indicated before, as regards this country, the movement in the exchanges is generally only of interest in connection with the bank rate. If the exchanges turn against this country so that gold is exported, or even if a drain is anticipated, the bank rate is raised, and directly or indirectly this rise may operate on mercantile advances generally.*

§ 16. *Of state of credit.*—The foreign exchanges may also be affected by the state of credit in both the countries considered. This is obvious from the fact that the documents used for remittance are credit documents, and our typical bill of exchange depends ultimately on the credit both of the drawer and the acceptor. The intervention of banks also has become of late years of more and more importance, and all banking rests on credit. The rate of exchange between any two centres, say London and Paris, will also be affected by the rates subsisting between these centres

* Compare the chapter on "The Rate of Interest."

and other centres with which they have transactions. The principles applied, however, are the same, and indeed for purposes of theory we may regard the rest of the world as one great foreign country.

Similarly the operations of banks in adding stability to the exchanges by creating paper for remittances to pay for imports, which are really paid for by exports at a later date,—those operations present no theoretical difficulty.

§ 17. *Variable effects of depreciation of currency.*— It seems to be otherwise, however, when we come to the case of the *depreciation* of currency and its effects on foreign trade. The problem is simple enough so far as the actual premium on gold is concerned. If a sovereign will buy so many francs at the rate of the mint par, and if the francs are depreciated, the sovereign must obtain so many more to the extent of the depreciation. If the depreciation is considerable, it may be said that the apparent course of the exchanges depends mainly on the extent of the depreciation. The other causes of fluctuation are still there, but they are altogether hidden by the premium on gold. There are also in this case no limits to the nominal or apparent rise in the exchange—that is, taking the sovereign as fixed and the depreciated currency as variable.

So far the matter is simple enough. There is, however, a point involved which is by no means simple in theory, and is yet of very great practical importance. The question is this: Suppose the currency of a country, which was formerly on a gold basis, becomes depreciated owing to excessive issues

of inconvertible notes, will this depreciation of itself tend to encourage exports or diminish exports (and, conversely, of imports), or will it have no real effect? I believe that the correct answer to this problem is, that the effect will depend altogether on the way in which the depreciation takes place, and that the answer must be different in the different cases.

§ 18. *First case.*—First, take the case in which the notes become discredited almost as soon as they are issued—that is to say, suppose that long before there are such abundant issues as to cause an inflation of prices through the increase in the quantity of currency a premium on gold arises. What will happen as regards exports and imports? People exporting to the country in question, and selling for the inconvertible paper which is, we may suppose, practically the only currency, will only receive about the same price as before, but, owing to the premium on gold, they will not obtain the same amount of gold to take back or send back to their own country.

Therefore, exports to the country with the depreciated notes will be checked. Conversely, exporters *from* that country will sell for the old prices reckoned in gold in other countries, and with this gold they can purchase more currency at home, and thus there will be a stimulus, so far, to exports *from* the country in question.

§ 19. *Second case.*—But take now another case. It might happen that prices in the country considered rose more than was indicated by the premium on gold. The Government might make its issues with great prudence, and float a mass of this paper and gradually

inflate prices before any danger of inconvertibility was suspected, and thus without any premium on gold arising, and later, for a time at any rate, the inflation of prices might exceed the premium on gold.

In this case exports *to* this country would be stimulated, and exports *from* it would be checked; and the final result would be that the adverse balance must be met in gold; then, as gold left the country the premium would rise, and ultimately it is quite possible that the effect of the depreciation might come to be exactly the opposite.

§ 20. *Third case.*—Take now a third case. If all the parties concerned were practically to ignore the depreciation, and conduct all their exchanges on a gold basis, there would be no stimulating influence either way. But it is very doubtful if this theoretical result is ever attained in practice. The people who really pay for the imports are the consumers in the country with the depreciated paper, and the people who must eventually receive the money for the exports from this country are the producers there, and both consumers and producers in the country concerned are in general obliged to use this depreciated paper.

The *foreign* trader may insure himself against risk by making *his* bargains on a sterling basis of exchange, but he cannot prevent the depreciation affecting the conditions of demand and supply in the internal markets of this country, and these markets are influenced by the extent and by the mode of the depreciation, and thus indirectly the foreigner also must be affected.

§ 21. *The silver exchanges.*—The use of inconvertible paper is of very frequent occurrence, and has important indirect consequences. In recent years also the

fluctuation in the rates of exchange between gold and silver have been of even greater interest and importance. The same principles must be applied, *mutatis mutandis*, as in the case of inconvertible paper. It would, however, be hopeless at the end of a lecture of this kind to tire your attention by trying to show the way in which the principles must be applied, or to discover to which of the three cases of depreciated paper the depreciation of silver may be likened. To those who wish to work at a good monetary problem I can heartily recommend the subject of the effect (if any) of the depreciation of silver on the prices of commodities in gold-using countries.

§ 22. *Summary of results.*—As the subject treated in this chapter is necessarily both technical and complex, it may be useful if, in conclusion, I restate briefly the principal positions.

The term "foreign exchanges" refers to the settlement of international debts. These debts are expressed in the moneys of the respective countries. Accordingly, the first thing is to find out the relative values of these moneys according to the fine gold they contain. This gives the *mint par*.

Next, we note that the comsumer in one country must in some way pay the producer in the other—that is, he must remit money or something that will command money—in the typical case, a bill of exchange. The price of these bills varies with the demand and supply, and the limits of the fluctuations are given by the cost of sending gold or of sending for gold. This gives the gold points or specie points.

In most cases these fluctuations in the exchanges

are only of interest to merchants directly engaged in foreign trade, and, being within narrow limits, are of little importance. But whenever the course of the exchanges is such that a drain of gold sets in, or is feared, there is a rise—and it may be a sharp and a great rise—in the bank rate. Such a movement may affect trade generally, and in extreme cases lead to a commercial crisis.

Another case is also of general importance. If the currency of one country becomes depreciated, the premium on gold will rise to the extent of the depreciation, and there are practically no limits to this rise. The British dealer with the foreign country which has the depreciated currency may make himself safe by making his bargains on a sterling basis, but he cannot avoid the indirect effects of this depreciation. Under various conditions the depreciation of the currency of a country may stimulate or may diminish its exports. It really depends on the way in which the depreciation arises.

A similar argument may be applied when one country has a silver standard and the other gold. The effect of the depreciation of silver upon the trade of silver-using countries depends on the causes and methods of the depreciation. The assertion that the depreciation of a currency acts as a bounty on exports may be true in some cases; in others, however, it would act like a tax on exports, and in any case these effects tend to disappear in time.

The great evil of depreciation is that with every change in the degree of the depreciation a new set of disturbances may arise.

CHAPTER III

THE RATE OF INTEREST

§ 1. *Interest on money and on capital distinguished.*—It was shown in the first chapter of this book that the term "money" is used with a variety of meanings. If, then, we take the term "interest" in what seems the most simple and obvious sense—namely, as the price paid for the use of a loan of money for a time—in order to get at the real or underlying meaning we must decide what is to be understood by "money" in this connection. We find on the first inspection that very often in those loans the "money" is merely an intermediary, and that what is really lent and borrowed—when the whole transaction is complete—is so much "capital." Take, for example, the common case of the conversion of some private manufacturing concern into a limited company. The company, in effect, borrows so much money from the investors and pays in return so much interest of various kinds and under various conditions. But this interest is only earned by converting the

money into various forms of productive "capital." The money in this case is only, to begin with, a medium of exchange, and the essence of the loan is "capital."

In other cases, however, the primary object of the loan is not to obtain capital for extending production, but to obtain "money" in the sense of legal tender, or at least in some form that will be accepted as such—the object being to meet some prior monetary obligation. In times of financial crisis, for example, many houses may be perfectly solvent if only time is allowed for realisation, but they fail simply because they cannot meet in money their monetary obligations. Accordingly, most recent writers on the principles of economics have drawn a sharp distinction between interest on loanable "capital" and interest on loanable "money," although, unfortunately, writers on money articles constantly use the terms "money" and "capital" as interchangeable.

§ 2. *Illustrations.*—In an examination of causes and principles the distinction is fundamental, and it is so also as a rule in practical business. If we take the Bank of England rate as typical or representative of the rate charged for loanable money as such, and the rate on first-class securities or debentures as typical or representative of the interest on loanable capital, we find that there is often a considerable difference between the two rates. Whilst interest on capital is relatively very steady—the yield to consols not varying perhaps one per cent. in fifty years—the bank rate may sometimes be above and sometimes below, and the changes are often very frequent and occasionally violent, oscillating in the

same period between 2 and 10 per cent. These differences are not to be explained by any difference in security or in risk. In both cases the security for all practical purposes may be considered perfect. I propose, then, to deal separately with these two kinds of interest, and to notice later on the interaction there may be between the two rates.

§ 3. *Difficulties in definition of capital.*—I have used the expression interest on capital, but a very slight application of economic analysis shows that capital itself is even more difficult of definition than money. It would be hopeless, by way of introduction to a subject sufficiently complex already, to enter into all those difficulties, but by way of illustration I may mention the two most popular meanings. Some people—and they may quote the authority of Adam Smith—look on capital as wealth that yields a *revenue;* others—and they may quote J. S. Mill—regard capital as wealth used in *production.* In some cases those differences of definition are of no practical importance, because the "capital" yields revenue by being used in production; but in other cases there might be great differences between capital and non-capital according to the definition. The recent war loan, for example, yields a revenue to the lenders, and, for all we know, may yield a revenue for centuries; but the corresponding capital has been used for the most part in the destruction of life and property, and it would be too severe a strain on language, even with a plentiful use of those convenient terms "indirectly" and "fructifying," to include destruction by war under the term economic production,—and cases might be

multiplied indefinitely. Take, again, the borrowings of various local authorities on the security of the rates. The loans will yield a revenue and so far rank as capital to the creditors so long as the cities and towns yield sufficient rates; but it is quite possible that, considered from the point of view of production, the "capital" will very soon melt away altogether. Those examples show that the terms "loanable capital," and consequently "interest on loanable capital," are by no means so simple as they appear at first sight. And the deeper we carry the analysis, whether in theory or in practice, so much greater do the difficulties become. Recently the highest legal talent of the country has been exercised in determining what is the nature of capital and how capital is related to dividends.

In whatever way we regard it, the answer to the question "What is capital?" presents difficulties in theory, in business, and in law. These difficulties may be partly surmounted and the nature and meaning of "capital" and "interest on capital" made clear by taking different cases. Capital, like money, has different functions.

§ 4. *Interest on capital divided into* PROFIT-*interest and* LOAN-*interest—Of* PROFIT-*interest.*—The interest on capital as such, in which the money is only used as an intermediary, may be divided first of all into two great classes which we may call *profit*-interest and *loan*-interest.

Profit-interest arises in this way. The owner of any form of capital who employs it in production will expect to gain certain gross profits. He will expect

something in the form of reward for his labour and enterprise, which economists call *wages of management* or *superintendence;* he will also expect on the average of a mass of transactions or over a period of time to cover all sorts of depreciation of his capital—his gross profit must provide for *insurance against risk;* and besides these two elements he will expect something by way of *interest.* The three elements are best distinguished in the case of a joint-stock company. In this case the wages of superintendence appear in the shape of directors' fees and salaries; the insurance against risk is represented by the reserve fund, or it may be by actual insurances under that name; and the balance which goes in dividends to the shareholders represents the interest on their capital. This interest again differs according to the security—*e.g.*, debentures, various preferences, ordinary shares, etc.; but after all allowances there remains an element which may be called *pure* interest—that is, interest on capital in which there is practically no risk and no trouble of management, although the interest is, so to speak, produced in the business. If any industry gets into a depressed condition, it is quite possible that the gross profits may not yield any interest after allowing for management and depreciation, and, of course, the capital may disappear altogether; but over a period of years it may be said that the "productive capital" of the country yields, on the whole, a certain rate of pure interest besides the other elements in gross profit.

§ 5. LOAN-*interest.* — *Loan*-interest on capital is considered from a point of view in which direct production is of a secondary or, it may be, of no

importance. People may be unable or unwilling to employ their capital themselves, and they lend it to others, receiving so much interest for its use. In this case it is indifferent to the lender what use is made of his capital; it may be wasted by an extravagant landlord or by an improvident government; but so long as the interest is obtainable from other funds at the disposal of the debtor this makes no difference. The interest on large amounts of capital is paid out of the produce of rates and taxes, and cannot be considered as earned by the productive employment of the capital concerned; and in other cases the interest is really paid out of other capital belonging to the debtor.

If, however, we leave out of account for the present the case of foreign investments and consider one country in isolation, it is plain that all this interest obtained on *loans* must itself in some way be produced in the country. The *loan*-interest may in some cases be a simple transfer of *profit*-interest, as in the case of various companies or of private firms, so far as they work with borrowed capital. This case is simple; but the *loan*-interest may also come, as already indicated, from other sources—from the general income of the tax-payers or from the gradual dissipation of other forms of capital. *Loan*-interest of this kind —whatever form it may assume, that is to say if it is not obtained from the productive employment of the corresponding capital—is of the nature of a tax upon productive capital and industry; and if all the capital of a country were advanced in unproductive loans of this kind the country would speedily be ruined.

If the capital is sent for investment in foreign countries, the case is in some ways similar to loans for unproductive purposes at home. In this case only the interest is received by the lending country; and thus from the national standpoint there is so far a reduction of income as regards the profits and wages which arise from the employment of capital in home industries.

Consider now the causes that determine the direction of the employment of loanable capital. It is clear that after allowing for security, facility for investment, and other conditions, the rate of interest on all kinds of capital must tend to equality.

§ 6. *Interaction between the two rates.*—Accordingly there must be a constant interaction between loans for productive and for unproductive purposes. If trade is flourishing, and gross profits, including *profit*-interest, are advancing, capital is directed towards industrial concerns; and conversely, with a depression of trade and profit-interest declining, capital is turned to non-industrial loans or to advances to foreign states on which the yield is a little better.

§ 7. *Interest is a price and subject to the laws of prices—Competition and monopoly.*—Interest for many purposes is best regarded as the *price* paid for the use of capital. And if interest is once looked on as a price, it comes under the general principles determining prices. In the course of progress the tendency of prices is to come under the influence of competition. And if we take a rapid glance over the actual history of industrial progress, we find that one of the most striking results is the substitution of the principle of

competition for the principle of *monopoly* in the determination of interest. In old societies interest was usually regarded as immoral and sinful, because in most cases it represented what was extracted by the usurer from the absolute necessities of the borrower. Under modern conditions the rate varies principally with the security that is offered, and not according to the particular necessities of the borrower. The borrower might be willing for his purposes to pay 10 per cent. a-month; but if the security is satisfactory he may have to pay less than 5 per cent. a-year.

§ 8. *Widening of markets with progress.*—Another principle that becomes prominent in the course of industrial progress is that prices are determined more and more by wider and wider markets. In older societies there were numbers of local markets, and prices were mainly determined by the local conditions affecting demand and supply. Under present conditions, for many "commodities"—using the term in an extended sense—there is a world-wide market. The prices of wheat, of cotton, of silver—to take but three instances—are determined by the conditions of demand and supply all the world over. A striking example was afforded by wheat in the year 1879. This year was the coldest of which there is any instrumental record in these islands, and there was a great failure of the harvest. So easily, however, was the deficit met, that the price of wheat only rose to 53s. 6d., as compared with 51s. as the average of 1871–1880. Even at the beginning of the nineteenth century such a deficiency in the harvest might have doubled or trebled the price.

The point of the illustration is this, that the price of loanable capital—that is, interest—in the course of industrial progress has also come to be subject to conditions of demand and supply all the world over, and no longer depends on local or even national markets. The rate of interest on loanable capital in this country depends, to say the least, very largely upon the rates that may be obtained in other countries; and with every development of the means of communication, including the diffusion of knowledge or the extension of publicity in the world's great markets —with every increase in the security afforded by the advance of international law, and of the recognition by individuals and by governments of the sacredness or the compelling force of contracts,—loanable capital will come more and more under these great world-influences.

I proceed, now, to notice very briefly some of the principal causes affecting, first the supply, and next the demand, for loanable *capital* as distinguished from "*money*."

§ 9. *The supply of loanable capital—Production.*— As regards the *supply* of capital, the causes may be divided into two groups. First, there are all the causes which tend to increase production or to diminish cost. A given amount of labour and also a given amount of coal will, with appropriate machinery, produce more than ever before, and, in all probability, this increase in the powers of production will continue. Again, the great improvements in transport, in security, and, I may add, in knowledge, have opened up abundant new sources for supplies of various forms of raw

material, including the raw material of food. This process seems also likely to continue, and man's power over nature to be further extended to a great degree. There is also to be considered the continuous utilisation of waste products, and the adoption and extension of multitudes of economies. And perhaps the greatest cause of all—if we are to consider the world's supply of capital—is the advance of all the other nations on the roads made by the pioneers of civilisation. China may follow Japan, as Japan has followed the West.

§ 10. *Effective desire of accumulation.*—But whether this enormous increase of wealth will be turned into "capital," or will be consumed directly and unproductively, depends on a *second* group of causes. These causes are mainly moral and intellectual, but they are equally real and important. Such, for example, are the causes which are summarised under the phrase the "effective desire of accumulation." There can be no doubt that, taking a wide survey, these causes tend to increase in force. The people in civilised states look further into the future and they make more provision for the future. This is shown not only by the growth of all forms of insurance, but by the growth of education and of morality, and by the desire to rise in the social scale. The better members of the lower social classes strive more and more to rise into the higher, and one potent means is by saving a certain amount of capital.

But it is not so much on the moral as on the intellectual side that the creation of capital is affected by modern progress. People are willing to wait

longer and to take more roundabout methods to secure their ends, and in the last resort that means they put more and more wealth into the form of capital.

§ 11. *Security.*—The great cause affecting the accumulation of capital that always appears in every part of the inquiry is *security*. Security to enjoy or to dispose of the fruits of saving is a necessary condition to the creation of capital. Under present conditions the increase of security as affecting the accumulation of capital may be specially observed in two ways. *First*, in the countries that are in the van of progress more and more undertakings are conducted on a sound basis. We are apt to lay too much stress on striking failures or gigantic frauds, but there is no question that relatively the losses of business are less than ever before, or the losses that occur are more easily repaired. The ordinary increase of capital in this country has been estimated at 200 million pounds per annum.*

But, *secondly*, the influence of the increase of security is still more noticeable in backward and new countries. More and more countries are offering security for the creation of capital, and with the growth of security there is at once an increase in productive power. Thus, from whatever point it is regarded, there is no question that, as far as supply is concerned, the tendency is for a continuous and considerable increase of capital.

§ 12. *Demand for capital, and first for unproductive purposes.*—Let us now consider demand, and,

* Such estimates are necessarily very rough, but they suffice for comparative purposes. See Giffen's *Growth of Capital.*

in the first place, the demand on the part of *unproductive* consumers. Amongst these the most important are the governments of the world, both national and municipal. The national debts of the world are said to have a par value of about £6000 millions sterling, and have mainly been incurred for unproductive purposes, especially for war or for armaments, and accordingly the interest is not derived from the productive employment of the original capital. Local debts to a greater extent represent productive capital, but still in this case also a large part is unproductive —that is to say, the loans do not produce their own interest. On the other hand, however, a large part of this expenditure, though classed as unproductive, in reality adds greatly to the efficiency of a nation as regards production, and also adds to those moral and intellectual qualities of the people which lead them to provide more and more for the future—that is, to create capital.

§ 13. *Demand for productive purposes.*—But, secondly, the demand for capital may be directly for *productive* purposes, and this demand has increased enormously of recent years through the growth of joint-stock companies, which now in this country exceed in importance private firms. The spread of companies gathers together masses of capital which was formerly wasted or kept idle for want of facilities for investment, and accordingly this increased demand largely creates the corresponding supply.

And as regards the demand for productive purposes generally, it may be observed that every new demand on a sound basis implies a certain surplus in

the future—that is to say, the ultimate effect of borrowing for production is a further increase of supply.

§ 14. *Forecast.*—It appears, so far, that the supply of capital is likely to outstrip the demand, and that the rate of interest on capital will tend to fall. And this general conclusion is strengthened by another consideration, the influence of which is not at first sight so obvious. There is to be considered the growth of population. Of the great civilised nations it is only in France that there appears to be an absolute diminution in the sense that the deaths exceed the births, but in other countries the rate of increase has fallen off, and the eminent French economist and statistician, Leroy-Beaulieu, has plausibly maintained such a decrease is the natural result of democracy. If, however, capital increases faster than population, the natural result is for wages to rise and interest to fall.

§ 15. *Effects of war.*—On the other hand, there is the possibility of a great war, which would directly increase the demand for capital and also tend to diminish the supply. It would also indirectly, by the shock to security, tend to raise the rate of interest. The subject, however, is too problematical for present consideration. I venture to observe, however, that the recent fall in the price of first-class investments, or, what is the same thing, the rise in the yield, has been too readily ascribed to the South African war. The effects of that war, whether as regards the demand or the supply of capital or any shock to security, do not seem of sufficient magnitude to account for the rise in

interest.* It is difficult to see why the Boer war should have so great an effect whilst the Franco-German war had relatively none.

I am inclined to think a more potent factor is the greater industrial demand and the widening of the field for investment. The gilt-edged securities have lost part of their monopoly or their scarcity value, and there has been a displacement of old capital and an investment of new in all kinds of undertakings which formerly were not available.

Thus loan-interest has moved in sympathy with profit-interest, and the rise is due, not to any abnormal increase in the demand for unproductive wars, but to the increase in the yield of productive capital. The last four years on the whole have been years of unexampled prosperity.

§ 16. *Interest on loanable money.*—I have dealt at such length with the rate of interest on "capital" that I have little time to consider the case of interest on loanable "money." The most interesting questions, however, in connection with this second case are perhaps better treated in the subject of Commercial Crises to be taken up in the next chapter. For the present it must suffice if I indicate very briefly the leading ideas; for a fuller statement and for technical illustrations you have Bagehot's *Lombard Street* and Mr Clare's *Money Market Primer*, and, I may add, the admirable little book of Professor Dunbar on Banking.

We may begin by saying that the value of money,

* The slight effect on interest of the declaration of peace has confirmed this view.

in the sense of the rate charged for advances of money, depends on the supply and the demand. But the term "money," as we saw in the first chapter, is a very variable and elastic term, and we must always consider the particular monetary function or functions involved. The "money" we are now concerned with must be either *legal tender* or by custom or habit it must have the force of legal tender. The special function of the money of the money market is to provide means for settling bargains made in terms of money. The money that is strictly legal tender is far too small in amount to make these settlements. The whole stock of legal tender in the United Kingdom, including Bank of England notes (issued against securities), probably does not exceed 126 million pounds.* Of this, again, more than half is in actual circulation from hand to hand, leaving some 50 or 60 million pounds for banking purposes, and of this amount generally more than a quarter is held by the Bank of England. At the date of this calculation the sum due by the banks of the United Kingdom on deposit and current accounts was 650 million pounds—that is, ten times the amount of the legal tender available. This is what is meant by saying that "bank" money consists for the most part of credit; it is based on legal tender, it represents legal tender, and on demand it is convertible into legal tender; but it is not itself legal tender, and the possibility of banking rests on the fact assured by experience that the demand for legal tender in the ordinary course of things will be relatively small, and can be calculated. Accordingly, the banks keep in

* Clare's *Primer*, p. 49.

the way of till money just as much legal tender as they think will be required; and just as the proportion of the kinds of legal tender required—silver, gold, notes—is known by experience, so also is the total amount.

It is only putting the same fact in another way when it is said that in most trade transactions payments are made by cheques or bills. In the words of Mr Clare, "Cheques and bills form the principal currency of this country." A reference to the Clearing-House Returns shows the magnitude of the transactions, and these returns furnish the best test of the activity of trade.

§ 17. *Importance of legal tender.*—But although legal tender forms only a relatively small part of the currency, it is an absolutely essential part. A certain amount is necessary for wages, retail transactions, railway fares, and various payments for which cheques—at least ordinary cheques—are not available. In ordinary times, as I said, the amount of legal tender required can be readily calculated and readily obtained, but as soon as the ordinary conditions change there is a change in the demand for legal tender. Thus an increase in the volume and activity of trade increases the demand directly, and any shock to credit by diminishing the use of cheques and bills indirectly increases the demand. In extreme cases an internal drain of this kind may lead to a commercial crisis.

§ 18. *Supply of legal tender inelastic.*—It will be seen, then, that whilst the supply of legal tender is practically limited and inelastic, the demand is liable

to variations, even if we consider only internal trade. But the principal demand for legal tender, or rather for the gold on which it is based, is the foreign demand. A foreign demand may arise suddenly in the most unexpected way, and it may be such that it can only be met by the export of gold. It is in this connection, as already pointed out, that movements in the foreign exchanges are of general importance. The Bank of England seeks to protect itself, and also to attract gold from other countries, by raising its rate. And since the Bank of England practically holds the only available reserve of gold for foreign demands, the proportion of its reserve to liabilities is a factor of the greatest importance in determining the rate.

§ 19. *The bank rate and the market rate.*—For simplicity, I have spoken as if there was at any time only one rate charged for advances of money. It is hardly necessary to point out that the bank rate may differ from the market rate, and that in practice there are great differences in market rates—according to the security offered, the class of business, the condition of the loan, and other circumstances.

§ 20. *Interaction of interest on capital, and interest on money as such.*—Although the rate of interest on capital as such is best distinguished from that on money as such, there is an interaction or a sympathy between the two rates. If the rates obtainable for money are low, purchases of first-class securities are increased, partly for the better interest and partly for the probable rise. A low rate also specially stimulates speculation for the rise on the Stock Exchange, if other conditions are favourable. But a

rise in the price of securities, with fixed interest, is the same as a fall in the rate of interest. Conversely, with higher rates for money as such, securities are sold, and the fall is again hastened by Stock Exchange speculation. Still, it is evident that a large part of the holdings of banks is of the nature of a documentary reserve, and although speculation on the Stock Exchange, whether for the rise or fall, is generally affected by the bank rate, it depends much more on other influences. Thus for long periods there may be a considerable difference between the two rates—namely, the interest on capital, and the interest on money as such.

§ 21. *Probable effects of great gold discoveries.*—I will conclude with a brief notice of one point of special interest at the present time. We have seen the fundamental importance of the gold reserve in the Bank of England, and of the effects of movements in that reserve on the rate of discount. It might then, at first sight, be thought that the annual supply of gold from the mines would be of fundamental importance: so that with a falling off in supply discount rates would rule high, and with an increase there would be a fall. There is, however, no such simple or necessary connection. We may take for illustration the recent changes in the production of gold.

During the last quarter of a century the supply of gold has doubled, and it is quite possible that during the next quarter it may again be doubled. The question is, What will be the probable effect on the rate of interest on loanable money? The answer, I think, depends on the way in which the supplies are used.

If a large part of the new gold were constantly added to the money market, so far the increase of supply would tend to lower rates. But the further question arises, Who is to keep the gold in the market? The gold of itself is as barren a metal as ever it was, and it is also as heavy and as inconvenient for large payments. The banks, including the Bank of England, will not be at the expense of keeping more gold than they require as reserve, and people will not use more than they are accustomed to as currency. Thus the new gold must be forced into circulation, not necessarily in this country, but in some part of the commercial world. The natural effect will be to raise prices, and in that way to stimulate trade. This stimulus to trade may again lead to a rise in the rate of discount.

Similarly, a falling off in the supply of gold tends to lower prices, and so to depress trade, and in that way indirectly a diminution in the production of gold may lower the rate of interest, as was the case twenty-five years ago. There are, no doubt, as in all these monetary questions, other counteracting and disturbing elements. The depreciation of silver had very great effect, in my opinion, in lowering prices, and also in promoting the useless hoarding of gold by France and other countries. It is quite possible, now that silver has lost its monetary influence, with the increase in the natural supplies of gold, there will be also some unlocking of these great hoards, and thus a still greater rise in general prices. Such a fall, however, in the exchange value of gold as is indicated by a rise in general prices, may be accompanied by a

rise in the rate of interest, unless counteracted by the other causes indicated.

§ 22. *Practical illustration.*—In conclusion, this case may be used to illustrate the general argument of this paper.

At first sight nothing seems more natural than to say: Interest means the price paid for the use of money; gold is money, and therefore if the supply of gold is increased, the supply of money also is increased, and therefore the rate of interest will fall. This argument, however, which at first sight seems so simple and plausible, on analysis is full of difficulties, not to say full of fallacies.

We must first of all distinguish between interest on "capital" and interest on "money." If we take account of all the capital of the world on which interest is paid, the gross total must be reckoned by thousands of millions sterling. This interest arises in many ways: it may be definitely earned in production or in the case of industrial companies, or it may be paid out of taxes, as in the case of the interest on national debts. But as the result of competition, what may be called the *pure* interest—that is, after allowing for risk, depreciation, management, etc.—the pure interest on all these multitudinous forms of capital tends more and more to equality, or the differences become less and less throughout the commercial world.

Suppose, then, that the amount of gold is increased by 50 million pounds a-year, what is this 50 million pounds added to these thousands of millions? It is evident, then, that the argument, from the increase of the supply of "capital," falls to the ground.

If, however, we carefully separate "capital" from "money," it is no doubt true that the amount of loanable money is of much smaller dimensions. But even loanable money embraces more than legal tender, and legal tender includes more than gold. The advances made by banks consist of a relatively small amount of legal tender and a still smaller amount of gold itself.

Why, then, should an addition to the supplies of gold from the mines lower the rate of interest on loanable money? It is well known that during the last twenty-five years the Bank of England rate has been for months together at the official minimum of 2 per cent., and the corresponding market rate has been lower still. And it is noteworthy that the rates were lowest when the annual production of gold was lowest. No doubt the adequacy of the ultimate reserve of gold held by the Bank of England is of the greatest importance to our credit system; but the amount of that reserve has very little connection with the annual production of gold, and the annual production of gold has still less connection with the rate of interest.

[*Note.*—Compare *Principles of Political Economy*, vol. ii. chap. xxii.]

CHAPTER IV

COMMERCIAL CRISES

§ 1. *Monetary and commercial crises distinguished.*—The title of this chapter is "Commercial Crises," but in accordance with common practice the term is used as also covering crises that are in the main monetary or financial. As a matter of history, in most cases, though not in all, crises have been both commercial and financial. For purposes of analysis, however, it is best to consider the two cases separately.

I shall deal first with monetary crises, and for guidance in this part of the subject I shall ask you to accept two principles, the importance of which has been abundantly proved by experience.

§ 2. *In monetary transactions ultimate solvency not sufficient.*—The *first* principle is this, namely—

In banking, and more generally in monetary transactions, ultimate solvency is not sufficient. No one doubts for a moment, and even in the most severe crises no one has doubted, the ultimate solvency of the Bank of England. Of this one very striking

proof may be offered. In each of the three great crises which followed the passing of the Bank Charter Act of 1844—namely, in 1847, in 1857, and in 1866—this Act was suspended by the authority of the government of the day. Now what is the meaning of the suspension of the Act? In effect it amounts simply to giving permission to the Bank of England to issue more notes without a corresponding increase of gold. If there had been any doubt of the ultimate solvency of the Bank of England, the remedy would have seemed like the joke in *Punch*, in which the young lady meets an overdrawn account by sending her banker another of her cheques payable to himself by himself. But, as a matter of fact, the suspension of the Act, in two cases indeed the mere announcement of the suspension, was sufficient to restore confidence and allay panic.

Again, to come to our own times, for a long time past the Bank of England has held a reserve of gold—for the notes in the banking department can be immediately converted into gold in the issue department,—the Bank has held a reserve equal to 40 or 50 per cent. of its deposits. In any ordinary bank such a proportion of reserve would seem ridiculously large, even if the term reserve were extended to cover much more than gold. But the Bank of England is the bankers' bank, and although in banking cash and legal tender may be economised to a wonderful degree, in certain cases for certain purposes they are essential. Sometimes nothing but gold itself will suffice, and practically the only reserve of gold is in the Bank of England.

§ 3. *Deferred convertibility and suspended convertibility.*—The *second* principle I ask you to apply is really only a special case of the first—namely, that deferred convertibility is not the same thing as immediate convertibility, and suspended convertibility is not the same thing as payment on demand. The case which used to be of most importance was the case of bank notes. For a long period bankers' advances were made for the most part in bank notes, and even fifty years ago it did not seem so preposterous as it would now to suppose that monetary crises would be avoided by the proper regulation of the issues of bank notes. That was the idea by which the Bank Act of 1844, and the corresponding Act for Scotland of the next year, were passed.

§ 4. *Possible over-issue of bank notes.*—The framers of the Act of 1844 did not mean simply to secure the absolute convertibility of the notes; above all, they wished to prevent excessive issues. Such excessive issues, they supposed, caused an inflation of credit and an inflation of prices, and ultimately led to a crisis. This idea was the subject of a prolonged controversy, which only ceased because bank notes came to be a less and less important part of the credit system, and the Bank of England notes in active circulation positively declined in spite of the growth of trade and population.

§ 5. *Same principle applicable to other forms of credit.*—But the fundamental idea is by no means dead, though the application must now be different. Those who opposed this "currency principle," as it was termed, or minimised its importance, maintained that

if the notes were convertible on demand there could not be an excessive issue. To which the supporters of the stringent limitation of issues by law replied, in effect, that the notes might not as a matter of fact be presented for payment—that as prices rose, more might be circulated, and thus that a crisis would eventually be more severe. This view gained the day, and, as I said, the Bank Act of 1844 was passed to prevent crises by limiting the issues of bank notes. Deferred convertibility is usually taken to mean at the option of the debtor; the peccant banker undertakes to cash his notes as if they were letters of exchange payable after so many days or months. Deferred convertibility of this kind was soon shown to be full of danger, witness Scottish banking in the eighteenth century. But there may also be deferred convertibility simply through the inaction of the creditor; the point is, that if the notes are presented for gold, gold will be given, but they are not, as a matter of fact, presented. And indeed the profit of banking for a long time depended mainly on this deferred conversion.

This source of profit may be quite sound in practice, as is proved by experience. At the same time, however, every civilised State has deliberately imposed limits on the issues of bank notes; though the limitation has been achieved in very different ways—as, for example, it is different in England and in Scotland. Time will not allow me to enter into the reasons in detail, but the reference to the universal consensus of opinion ought to be sufficient. *Convertibility in itself is not thought to be a sufficient safeguard against the over-issue of bank notes.*

But what, it may be asked, is the bearing of the argument on commercial crises under present conditions, when not only issues of bank notes are limited, but the very use of notes is of minor importance? * The answer is, that the same principles apply in the case of deposit banking and cheques; the notes have been taken for illustration because they are the simplest form of credit instruments.

§ 6. *Banks of deposit and banks of issue.*—In deposit banks, just as in banks of issue, in the first place ultimate solvency is not enough; and in the second place the mere fact that cheques are all nominally payable in legal tender on demand is not enough to prevent the unwise extension of credit, and as a consequence excessive speculation and inflation. And yet in this country bankers are practically left to themselves in the management of their deposits, advances, and reserves; and whilst the issues of notes are so strictly regulated, the use of cheques is, from the same point of view, altogether unregulated.

In some countries deposit banking has been the subject of legal regulation—notably in the United States—and the want of regulation in this country does not show that there are no dangers in freedom. The system has grown up under various influences instead of being a logical application of principles. The absence of legal regulation may show either that

* "The balance-sheets for December 1887 of six English banks of issue selected at random show liabilities of £200,000 on notes (compared with £360,000 in 1844) against no less than seven and a half millions on current and deposit accounts."—Clare's *Money-Market Primer*, p. 15.

the banks are to be trusted if left to themselves, or that legal control is too difficult to manage or to introduce. Let me again refer to the Bank of England and the account of its functions and position as given in that classic work, Bagehot's *Lombard Street.*

§ 7. *Deposit banks subject to little legal control.*— The essence of the argument is to show the delicacy and the danger of the present system. No writer has ever made so clear the narrow foundation of our present credit and banking system, and the important part played by the Bank of England, which, strictly speaking, is not a State bank, and the governor and the directors of which are not bankers, but merchants engaged in other businesses. And yet the moral of Bagehot's argument, his general practical conclusion, is not that law and government should at once put an end to such an anomalous state of things, but simply that public opinion should impress on these directors a sense of responsibility, and that some changes should be made in the appointment of the governor and directors so as to admit of greater permanence in the executive, and an admixture of trained bankers. But of legislative control and legal rules for the management of the reserve and deposits, there is not a word.

Well, then, the mere fact that deposit banking is left practically free in this country does not show that it is not liable to danger, but simply that under present conditions the danger is not such as can be met in fact by legislative control. The simple truth is that, as in so much of our political and commercial system, so in the most important part of our bank-

ing, we rely on the system of national liberty, and we trust more to historical growth than to the logical application of principles.

§ 8. *Causes of financial crises—Insufficient reserve.*—A financial crisis may arise, broadly speaking, in two ways. In the first place, the ultimate reserve may prove insufficient to meet a sudden strain. Such a strain may arise from events occurring in some foreign country—the outbreak of war, a political revolution, or it may be the failure of some foreign banking system. In the past the reserve kept was inadequate, and in times of peril it was mismanaged. This mismanagement of the reserve, if not the cause, was an aggravation of crises. At present the amount is larger, and measures of precaution are taken much sooner; and last, but not least, in times of pressure assistance is afforded more readily when the ultimate security is undoubted. In fact, under present conditions, it seems at first sight hardly conceivable that even a foreign drain could be dangerous to the Bank of England, whilst any home drain, it may be thought, could be met by the suspension of the Bank Act and the issue of Bank of England notes.

But the stability of our present system is by no means perfect. It is now more than a quarter of a century since Bagehot described the dangers of our one-reserve system, and yet at this very time the London bankers are still discussing the best means of diminishing these dangers. There is, fortunately, no question that as regards the management of reserves —especially the reserve of the Bank of England—there has been immense progress since 1866. So

great, indeed, has the improvement been, that, in spite of the Baring crisis, it is seriously maintained by good authorities that crises from this source are no longer to be feared. Seeing, however, that it is little more than ten years since the Bank of England was borrowing gold from the Bank of France and from Russia, this complacency is rather premature. In these days nothing is secure from the attack of combined speculation. So far back as 1866 Overend & Gurney tried to embarrass the Bank of England by the sudden withdrawal of three millions. It is, at any rate, not beyond the range of possibility that the banking system of this country might be attacked by some great speculative combination in what is generally considered its most vulnerable part.

§ 9. *The credit superstructure.*—But there is another source of danger. The danger may arise, not in the reserve, but in the credit superstructure. No doubt, here also banks have learned from experience, and they are much more prudent than was formerly the case. Advances are made on better security—in the widest sense of the term—and the funds of the banks are kept more under control. But in a system which rests largely on the good faith and the sound judgment of hundreds and thousands of people, how can we be sure that some gigantic fraud, or at least some disastrous error of judgment, will not be perpetrated? It is on this point that the warning of history is most clear and convincing—and not only ancient history, but history that has been imprinted on the minds of living men.

Even granting that the management of the reserves

were perfect, that is only part of the business. There is also the danger of excessive competition for business, and the advance of the funds of the banks or of one or more of them beyond the proper range of banking securities—there is the danger of over-confidence, of ignorance, and of fraud. Owing to the close inter-dependence of every part of our credit system, any failure on a large scale may bring down firms that are in no way to blame. No doubt the businesses that are weakest fail the soonest, but the strongest may be unable to bear the strain. And the losses incurred may be such that even the ultimate solvency is not secure. It is true that in banking, conducted on the principles confirmed by experience, there ought to be no danger of ultimate solvency. A bank can apply almost indefinitely the method of dividing the risk, just as an insurance company may itself insure against certain risks by re-insurance. It is true, however, that the principle of insurance is not always so easy of application in banking as it is in life insurance. In times of a great plague the life insurance companies have to meet many claims for deaths, but in times of a great panic banks must meet claims of people who think they are going to die. As we all know, banks have failed in the past and in all probability will fail in the future, though not to the same extent. The principal danger of banking arises at present, not with reference to ultimate solvency, but with reference to immediate demands in times of sudden discredit or alarm. And in this connection it may be observed that although the shock only lasts a short time the recovery may be slow, and during the

process of recovery a strain may be imposed on industry generally—that is to say, a crisis financial in origin may in its effects become commercial.

§ 10. *Causes of commercial crises—Over-speculation—Historical cases.*—It is time, however, to observe that crises may arise from causes that are primarily commercial and in which the financial results are secondary. I pass on, then, to consider commercial crises in the more special sense of the term. If we look back on the history of commercial crises, we often find that they begin with a *bonâ-fide* expansion of trade and industry. Such an expansion may be due to the adoption on a large scale of new methods of production and of transport. Thus, at the end of the eighteenth century, so many changes were introduced that the period is often spoken of as the Industrial Revolution. The crisis of 1793 was preceded by a *bonâ-fide* expansion of trade consequent on the increased use of machinery for manufacture and improvement in transport by the greater use of canals.

This *bonâ-fide* development of industry was accompanied by over-speculation and the undue extension of credit. The crisis was precipitated by political causes, especially the war with France. It was marked by many failures of country banks and a distrust of credit documents. The difficulty was met to some extent by the issue of exchequer bills, but ultimately a continuance of the same unfavourable conditions led to the suspension of cash payments by the Bank of England, and Bank of England notes remained inconvertible till 1819.

The principal cause of the crisis of 1847 was

mainly due to the great development of railways. Twenty years before the capital expenditure on railways, then in their infancy, was less than one million a-year. Even in 1842–43 the capital expenditure was only about $4\frac{1}{2}$ millions; then in 1846 the amount authorised by Parliament had risen to 132 million pounds. This actual authorisation of capital for railways was accompanied by a still greater amount of speculation. It has been stated that in 1845—the preceding year—the market value of the various new schemes which were represented by letters of allotment was not less than 500 million pounds. The speculative rise in shares was enormous. In the Leeds and Thirsk Railway shares with £2, 10s. paid rose in a few months to £23, 10s.—*i.e.*, nine times the value of the amount paid; in another case shares with £4 paid in January 1845 were selling at £4, 10s., and in September at £42, 15s.—again a rise of more than nine times. Here again, though the crisis was commercial in origin, it was in its secondary symptoms financial. The reserve of the Bank of England was reduced to £1,600,000, consols fell to $77\frac{3}{4}$, and many banks failed. In the end the financial crisis was stayed by the suspension of the Bank Act of 1844.

I have taken these two crises for illustration, because the commercial causes in which they originated were not only perfectly sound, but were destined ultimately to increase enormously the industrial power of the nation. The development of machinery, and the improvement of transport and the means of communication, were unquestionably two of the

principal causes of industrial progress in the nineteenth century.

In a case of this kind, which begins with *bonâ-fide* causes of prosperity, the prosperity passes into inflation, and the inflation into a crisis, followed by a depression, simply because speculation, aided by credit, anticipates too rapidly the realisation of the future.

§ 11. *Similarity in development.*—The process after the preliminary stages is invariably the same. People begin by investing their money in something which they think will yield a good return. This is unquestionably so far legitimate enterprise. There would be no progress if the owners of capital did not take a certain risk in new undertakings. The next step is that the value of the "new thing"—whatever it is—the value rises. And then people begin to buy the thing, not with the idea of getting a good yield from it in the shape of income of some sort, but of getting an extravagant profit by a further rapid rise in value. Very soon the original object is altogether lost sight of, and prices are paid which under no conceivable circumstances could be justified by legitimate business. Then the speculation naturally spreads to other things—many of them hopelessly unsound from the beginning. If a general speculation of this kind is aided by a system of credit that is itself unsound, or at any rate not properly under control, the inflation is pushed to greater extremes than would otherwise be possible. Bad speculation feeds on bad finance. Some speculators, however, are more far-sighted than others, and some credit

institutions are more prudent with their advances; speculation for the fall takes the place of speculation for the rise; the fall becomes an avalanche; good and bad are mingled together, and the inevitable crisis is followed by a period of depression of trade and contraction of credit.

§ 12. *The tulip mania.*—Economic history is full of examples of speculation of this kind; sometimes it is purely local and temporary, at other times it seizes a whole nation—it may even affect the whole commercial world; it may be prolonged over a considerable time, and the collapse, when it occurs, is all the more redoubtable. Let me recall one or two famous examples. About the middle of the sixteenth century a German received a present of some tulips from Constantinople, and the flower soon became very popular, especially in Holland. The tulip was discovered to be capable of great variation, and especially amenable to artificial cultivation and experiment. For nearly one hundred years this plant was cultivated with great success in Holland; and the growth of tulips became a very profitable and highly artistic industry. At last the trade became too profitable, and the prices of coveted specimens rose to great heights, and in the year 1634, to quote the pithy description of an old writer, "the whole Dutch nation went mad about tulips." Ordinary trades were neglected for growing tulips; then people began buying the bulbs to sell again at a profit; prices rose every day, and in the course of a year specimens of single bulbs fetched £300, £400, and £550. Then a speculation for the fall began; roots were

sold by those who did not possess them, more were sold than were in existence, and perhaps the first specimen of a "corner" was when a number of tulips had been sold of a kind of which there were only two specimens in the market.

This speculation attracted attention in all the exchanges in Holland, the infection spread to other countries, and large sums were remitted to Holland for speculation in tulips. At last—but not till 1636—prices reached their climax, and a panic ensued on forced realisations which brought ruin to thousands, and many years passed before the force of the shock was spent. Yet even in this tulip mania there was a basis of reality. The growth of bulbs of all kinds became an important Dutch industry, and is so to this day. The interest of the example lies in its *a priori* improbability. The subject of the speculation is a new kind of flower, and the country that was afflicted with the mania was the country of the sober-minded, phlegmatic Dutch.

§ 13. *Other speculative manias.*—The greatest speculative manias on record, with which the nineteenth century has nothing to compare, arose in the first quarter of the eighteenth century—the South Sea Bubble in England, and the Mississippi scheme and the speculation associated with the name of John Law * in France. The greatest and most picturesque of all speculators was John Law, and there is little doubt that he was a man of great financial genius, and that his schemes, especially his great Bank, only proved

* The essay on "John Law and the Greatest Speculation Mania on Record," in my *Money and Monetary Problems* (6th ed.), p. 165.

unsound when they went beyond his own control. Even the period of the South Sea Bubble saw the promotion of some of the companies which have proved the most prosperous of any on record—as, for example, the New River for supplying London with water.

Facilities for speculation in recent times have no doubt been largely increased by the growth of joint-stock enterprise, especially after the adoption of the principle of limited liability. The possibilities of speculation have been further increased by the enormous expansion of credit, by the great improvements in the means of communication, by the telegraph, and by the extension over a wider and wider area of dealings, not only on the stock exchanges, but on all the markets for important commodities. Nor can we suppose that in the course of two or three centuries there has been a fundamental change in human nature; so far as human nature is concerned, a South Sea Bubble might begin to-morrow; the elementary passions are as strong as ever, including the love of gain and the love of gambling; probably, indeed, so far as the mere desire or the mere greed is concerned, the passion is at present stronger than in many former times when speculation became rampant.

§ 14. *Other causes—Excess of fixed capital.*—Although, however, both history and theory point to excessive speculation as the principal cause of crises, there are other causes which are too important to be passed over. The whole of modern industry is extremely complex, and the various parts are interdependent, and the whole organisation is extremely

delicate. Accordingly, any great disturbance in the methods of production, and any dislocation in any of the parts, may indirectly affect the whole system. A great conversion of circulating capital into fixed capital involves a disturbance of this kind. It may happen that more of the fixed capital is created than there is any effective demand for, and also that not enough circulating capital is left for the ordinary business of the country. In such a case as this, even if there is no crisis in the sense of a financial panic, there is a period of inflation, followed by a more or less prolonged depression. And in all probability this creation of fixed capital will be accompanied by excessive speculation in the corresponding companies—*e.g.*, in railways, mines, or it may be even in land itself. The present depression in Russia is due to the excessive creation of fixed capital, and that in Germany is also associated with a too rapid industrial development.

§ 15. *Over-production.*—Again, there is the possibility of general over-production in the sense that markets become over-stocked, production becomes unprofitable, and labour finds less employment. Under modern conditions a rise in prices and profits in any one great industry not only stimulates production in that industry, but the movement spreads from trade to trade through the expenditure of the extra profits and wages, and the whole production of the country or of the world is carried on at a higher pressure. Theoretically it may be argued, as by J. S. Mill, that general over-production is impossible, that commodities pay for commodities, that the more there

is produced the more there is to exchange. But this theory implies a perfection in the methods of distribution or the possibility of exactly adjusting supply to demand, and of turning capital into new modes of employment, that does not exist in practice.

§ 16. *Raw materials and the seasons.*—A general cause, which used to be of the first importance, is found in disturbances affecting the production of raw material, including food. Under old conditions, when each country relied mainly on its own harvests, a series of bad harvests caused universal depression, except to the farmers, who were more than compensated by the rise in prices; and a series of good harvests caused general prosperity, except to the farmers, who lost more by the fall in prices. The influence of the harvest in England used to be so great that the price of consols was affected by the weather. Under present conditions the area of supply has been so extended that the deficiency in one part can be met by the abundance of another, and in any case so much is produced, and of such variety, that as regards food, apart from a general war, there is little fear of any real scarcity. With regard to raw material of various kinds there is less room for substitution, and there may be real scarcity, as we have experienced lately as regards coal, and formerly as regards cotton. It was the consideration of the importance of the supplies of food and raw material which led Professor Jevons to formulate what is known as the sun-spot theory of commercial crises—the name is rather startling, but there is nothing unreasonable in the idea.

§ 17. *The sun-spot theory.*—"It seems probable," argues Jevons, "that commercial crises are connected with a periodic variation of weather affecting all parts of the earth, and probably arising from increased waves of heat received from the sun at average intervals of ten years and a fraction." Cycles of weather of this kind would, of course, greatly affect the production of raw material, including food products, and the oscillation between general abundance and scarcity might, under simpler conditions, very well be associated with inflations and depressions of trade with a crisis at a period of transition.

§ 18. *Theory of credit cycles.*—The periodicity of commercial crises at intervals of ten years, or at any rate the regular alternation of inflations and depressions during decennial periods, has been so marked that it is natural to look for some very general cause. The late Mr Mills of Manchester, who was an intimate friend of Jevons, and well known both as a banker and as an economist, sought for such a general cause, not in external nature in general, but in human nature in particular. Mr Mills was the author of the phrase "credit cycle," and his theory can be best expressed in the biological language that is at present so fashionable. Mr Mills made a minute examination of the life history of a credit cycle, and as he conducted his inquiry just after the great crisis of 1866, which had followed that of 1857 after the allotted time, he had very fine specimens for illustration. His description of a credit cycle would certainly apply to that period: "During each of these decades," he says, "commercial credit runs through the mutations of a life, having its infancy,

growth to maturity, diseased overgrowth and death by collapse."

Mr Mills argued that the remedy against the recurrence of crises was the spread of information, and just as some diseases are destroyed by light, so also—this was his main contention—crises may be destroyed by the light of knowledge and of publicity. That most solid of all recent works on economics, the *Dictionary of Political Economy*, edited by Mr Palgrave, seriously asserts that the anticipation of Mr Mills has been verified in some measure by the course of events.

This theory seems quite reasonable and even plausible in itself. Credit depends to a great extent on confidence, and an inflation of credit involves misplaced confidence. It takes time to recover from the effects of a panic, or even from a narrow escape. After a crisis business is conducted on cautious and sound methods—for a time. Then the saying is verified that John Bull can stand most things, but he cannot stand two per cent. Two per cent. for the bank-rate may be quite satisfactory, but two per cent. for what we have called *profit*-interest, and nothing in the shape of the wages of speculation, this is the two per cent. against which producers and traders rebel. They prefer their toil enlivened with a little risk, and their gains diversified with a little luck. Thus the period of depression passes into confidence; the panic of the past looks less and less black, and the promise of the future more and more rosy; and a new period of inflation is inaugurated.

§ 19. *Importance of reference to history.*—We are too

much inclined to think that this ancient history has no lesson for us, and that our methods of business are so sound and so different that all danger of commercial crises is past. We seem to think that steam and electricity have not only revolutionised production and transport, but have also revolutionised human nature. In sober truth, human nature remains much the same, and unless our superior knowledge is used to regulate methods of business, these changes in mechanical appliances will only give greater opportunity for mischief. Those who think commercial and financial crises are things of the past have only to recall the Baring crisis of 1890. It is quite true, in this case, that panic was avoided, and that the crisis never became general, and even the offending firm was rehabilitated. But the catastrophe was so near, and for a time the danger looked so serious, that the example loses little of its force by way of warning. It was the practical wisdom, the moral courage, and the keen sense of public duty on the part of a few men that saved the situation. I will conclude this paper by recalling the words used by Viscount Goschen in a speech at Leeds a few weeks after the danger had been surmounted. After telling the audience that we had only escaped disaster by the skin of our teeth, he goes on to describe the serious nature of the crisis. These are the words: "No fertile imagination could exaggerate the gravity of the crisis; and if I attempt to bring home to those who are listening to me now the serious nature of the crisis, I do so in order to accentuate the necessity of their turning their attention to what I may call the necessity for soundness in

our banking, and soundness in our currency, transactions. I doubt whether the public has thoroughly realised the extent of the danger to which what is called the banking crisis exposed us all. It was not a question of a narrow circle of financiers or traders. The liabilities were so gigantic, the position of the house was so unique, that interests were at stake far beyond individual fortunes—far beyond the fortunes of any class. We were on the brink of a crisis through which it might have been difficult for the soundest to pass unscathed, for the wealthiest to have escaped. It was a time when none who had liabilities or engagements to pay could say how they could pay them if a condition of things were to continue under which securities could not be realised, under which produce could not be sold, under which bills could not be discounted, under which appeared an absence of cash sufficient to discharge the liabilities of the general public."

There is but one interpretation of these words, and that is—that in the opinion of this eminent authority we were within an ace of a crisis which would have exceeded in intensity the famous crisis of 1866. At the same time I have no wish to exaggerate the possibility of crises or the dangers that may arise when they do occur. Viscount Goschen spoke when the danger was hardly past; but to us it is already part of ancient history. We can at present afford to be cool spectators and impartial observers. There could, however, be no greater mistake than to suppose that commercial and financial crises are as antiquated as old machinery; they not only may occur, but it is

quite possible that for the time being the effects may be still more disastrous than in former times. All we are entitled to say is, that, as in the past, these effects will be obliterated, and commerce will revert to normal conditions.

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